

## ABSTRACT

Disclosed relates to an apparatus and method for arbitrating data transmission amongst at least a Media Access Control (MAC) device and at least a Physical Layer (PHY) device having a Serial Media Independent Interface (SMII), respectively, which can remove a restriction of a distance between the MAC and PHY devices on a printed circuit board (PCB) and prevent a transmission error due to a data transmission delay.

The apparatus for arbitrating data transmission amongst a first and a second devices corresponding to the MAC and PHY devices having SMII standard, respectively, the apparatus comprising at least one buffering means for buffering transmission data input from the first device to be resynchronized a predetermined number of times in a unit of a segment and outputting the resynchronized transmission data to the second device.